

REMARKS

Claims 1-20 are pending in this application. Attached hereto is a complete listing of all claims in the application, with their current status listed parenthetically. By this Response, no claims are cancelled, amended or withdrawn.

In the Response to Arguments section of the January 24, 2006 Office Action that addresses the Applicants November 14, 2005 Response, the Examiner states:

“Regarding claims 1, 6, Applicant argues Webster et al does not disclose the claimed ultra-wideband device. Examiner respectfully disagrees. On page 10 of instant specification [*sic*], ultra-wideband pulse examples are given include [*sic*] pulses with 3.2 GHz frequency spread and Webster et al. discloses 2.4 and 5 GHz bands. See column 1, lines 21-50.”

Applicant agrees with the Examiner that Webster teaches communication at the 2.4 and 5 GHz bands. However, Webster is **not** transmitting a signal that occupies the entire frequency **between** 2.4 and 5 GHz. (*i.e.*, a 2.6 GHz wide signal). Instead, Webster transmits a signal at **either** 2.4 or 5 GHz, with the signal occupying about 20 MHz of frequency band.

This is because Webster teaches a communication system for the IEEE 802.11g standard (FIG. 1, and col. 3, lines 21-23).

The Examiner cites Webster (col. 1, lines 21-50) to support an assertion of ultra-wideband taught within Webster. Instead, Webster teaches “IEEE 802.11 standard” (col 1, line 22), and devices that operate in the 2.4 and 5 GHz **bands** (not **from** 2.4 to 5 GHz (line 23)). As is known in the art these devices are commonly known as 802.11a, 802.11b, and at the time of Webster’s teaching, the “new” 802.11g (col. 1, lines 21-36). Additionally, Webster appropriately teaches, “The 802.11b uses standard uses direct sequence spread spectrum (DSSS) with a chip rate of 11 MHz” (col. 1, lines 27-28). Additionally, Webster teaches that the “new”

802.11g operates in the 2.4 GHz band (col. 1, line 38). As is known in the art, 802.11b and 802.11g both operate in the 2.4 GHz band and have 11, mostly overlapping, **22 MHz wide** channels. 802.11g operates in the 5 GHz band with 12 non-overlapping **20 MHz wide** channels. None of these devices are ultra-wideband devices, nor do they employ ultra wideband technology.

Applicant again invites the Examiner to please read page 9, line 3 to page 11, line 18, of Applicant's specification, which directly contrasts 802.11 technology with ultra-wideband technology (see FIGS. 1 and 2).

In addition, ultra-wideband technology has been defined by the Federal Communications Commission in 47 CFR 15.503 as "intentional radiator[s] that, at any point in time [have] a fractional bandwidth equal to or greater than 0.20 (*i.e.*, 20%) or [have] a UWB bandwidth equal to or greater than 500 MHz regardless of the fractional bandwidth." This is consistent with the exemplary type of ultra wideband technology is described in the present specification.

As is known in the art, the fractional bandwidth of 802.11b and 802.11g is approximately 0.92%, with a bandwidth of approximately 22 MHz. The fractional bandwidth of 802.11a is approximately 0.44%, with a bandwidth of approximately 20 MHz. Thus, the 802.11 devices taught in Webster are clearly not ultra-wideband devices, as the signals transmitted by 802.11 devices are clearly not ultra-wideband signals.

As Webster does not teach the elements recited in Applicant's claims, Applicant respectfully submits that the above response has traversed the rejection of claims 1-20.

Conclusion

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-20 at an early date is solicited. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

April 13, 2006

Date



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